

Penetration Test and Ethical Hacking

Master of Science in Cybersecurity

Orientation :CYB 740

Prepared by
Dr. Nermin Hamza Ewais

Who am I ? Chapter

➤ **Dr. Nermin Hamza Ewais**

❖ Associate Professor in computer science

- Ph.D from Cairo University 2010
- PHD Thesis: "A novel security system for computer networks"
- M.Sc from Cairo University, 2005
- B.Sc from Cairo University , 2000

❖ Previous Work.

Cairo University – King Abdulaziz University

❖ Training.

CEH – CHFI- Academic Courses

Dr. Nermin Hamza Ewais

Associate Professor



The course that will be taught

Penetration Test and Ethical Hacking



Penetration Test and Ethical Hacking

- *The Penetration testing and Ethical Hacking course provide the skills required for a student to learn how to test the system.*
- A penetration test or pen-test is a test evaluating the strengths of all security controls on the computer system. Penetration tests evaluate procedural and operational controls as well as technological controls.



Penetration Test and Ethical Hacking

➤ *Learning Outcomes:*

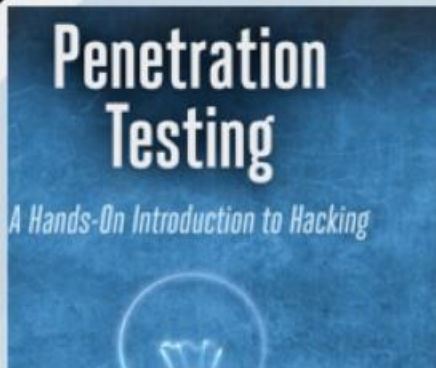
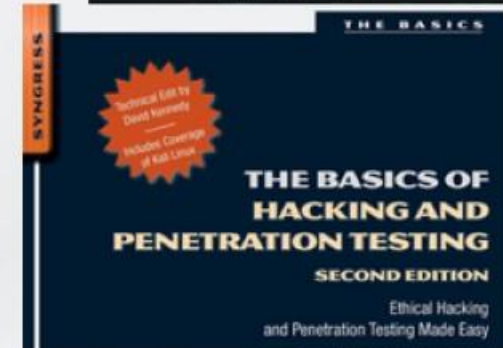
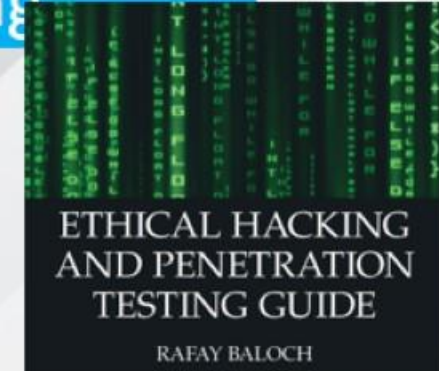
- Demonstrate knowledge of various vulnerabilities in network applications.
- Practice awareness of various malicious content and guiding ways for protection against the same.
- Demonstrate knowledge of various forms of attacks.
- Recall judicious and ethical use of various tools.
- Expertise in the techniques of system hacking and hacking over a wireless network.

Penetration Test and Ethical Hacking

➤ **Credit Hours:** 3 credit hours.

➤ **Required Textbook:**

1. ETHICAL HACKING AND PENETRATION TESTING GUIDE, RAFAY BALOCH, 2015 by Taylor & Francis Group, LLC
2. The Basics of Hacking and Penetration Testing, Ethical Hacking and Penetration Testing Made Easy, Second Edition, Dr. Patrick Engebretson, David Kenned Technical Editor, 2013 Elsevier Inc. All rights reserved
3. Penetration testing A Hands-On Introduction to Hacking, Georgia Weidman, 2014 by Georgia Weidman



Units of Course Contents

Module	Course Unit	No.of Weeks	Contact Hours
1	Lecture1 Introduction to Penetration test	1 st	3
2	Lecture2 Reconnaissance and Information gathering	2 nd	3
3	Lecture3 Scanning	3	3
4	Lecture4 Exploitation	4	3
5	Lecture5 Password Cracking and Network Sniffing	5	3
6	Lecture6 DOS Attack and Social Engineering	6	3
7	Lecture7 SQL Injection	7	3
8	Lecture8 Session Hijacking	8	3
9	Lecture9 Cross site scripting	9	3
10	Lecture10 Post-exploitation and Penetration Testing Report	10	3

Course Information

➤ Assessment Method:

▶ Short Exam

- ▶ 80% marks
 - ▶ Count of short Exam 10 (Weekly)
 - ▶ 8 Marks for each of short Exam.

▶ 20% Final Examination

-- اللغة الأساسية في المحاضرات هي:
اللغة الإنجليزية
-- الاختبارات باللغة الإنجليزية مع وجود
ترجمة للسؤال C.



exam

وَفَقْرًا كَرِيمًا لِلَّهِ

Thank You